

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1, 9, 10, 18, 19 and 25-27 are currently being prosecuted. The Examiner is respectfully requested to reconsider her rejections in view of the amendments and remarks as set forth below.

ENTRY OF AMENDMENT

Applicants submit that entry of this Amendment and full consideration thereof is appropriate since it is being filed with a Request for Continued Examination. Applicants also submit that full consideration of the Amendment filed on August 3, 2006 is appropriate and is respectfully requested.

INFORMATION DISCLOSURE STATEMENT

In the previous amendment, Applicants noted the filing of the Information Disclosure Statement on January 25, 2005, including a request for the return of an initialed copy of the SB-08 Form. Applicants again request that the Examiner forward the initialed form to the undersigned.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 9, 10 and 25 stand rejected under 35 U.S.C. § 103 as being obvious over Nambu et al. (US Patent 5,615,430) in view of Oota (US Published Application 2002/0039403). This rejection is respectfully traversed.

The Examiner states that Nambu et al. shows a composite irradiation system including a CT scanner, irradiation apparatus and x-ray simulator that use a common bed. The Examiner states the bed is capable of movement in both linear and curved movements and also may rotate on a turntable mounted on the floor face. The Examiner admits that Nambu et al. does not include movements of the CT scanner, irradiation apparatus or x-ray simulator. The Examiner relies on Oota to show a CT and x-ray system moveable on rails on the floor and ceiling with a variety of movements of the systems which cross each other.

Applicants disagree that the present claims are obvious over this combination of references. As discussed in the previous amendment, Applicants submit that Nambu et al. has a linear accelerator and CT apparatus which are fixed in position. The bed moves along a rail and can swing about a rotation axis. However, the only linear movements are the table adjustment where the bed extends from the base.

The Oota reference includes a stand fixed to the floor surface where the bed can be raised or lowered on the base and can extend in the longitudinal direction in the same kind of table adjustment movement. Applicants submit that the invention as presently claimed describes an apparatus which is not found in either of these references or their combination.

The common bed on which the patient lies is now said to include a positional adjustment means which allows the adjustment of the top plate of the bed in three directions, the lateral direction, longitudinal direction and the height direction. This positional adjustment means is in addition to the linear moving mechanism for the common bed which is disposed so that the moving mechanism for the CT scanner crosses the moving mechanism for the bed. It is further noted that claim 1 describes the CT scanner as being in parallel to the irradiation apparatus with the common bed being moveable between the two. Applicants submit first that the movement of a common bed linearly between apparatuses that are disposed in parallel is not disclosed in either Nambu et al. or Oota. The bed of Oota is mounted on a stand which is fixed to the floor so that the tabletop is only moveable by extension. In Nambu et al., the bed is rotated horizontally around a central axis. Neither of the references teach the concept that the top of the bed can move in three directions in addition to the linear moving mechanism. Applicants submit that since neither of the references teach this concept, claim 1 is not obvious over the combination of references.

Further, by using the system described in the present application, very high energy x-rays from the irradiation apparatus can be controlled to irradiate only the desired portion and not to damage the healthy portion which surrounds it. Enhancing this accuracy it is very important to improve the effect of radiation therapy. However, in imaging systems such as shown in Oota, low energy x-rays from imaging apparatuses are irradiated widely around the diseased portion so

that the positional accuracy of the x-rays is not so important. Accordingly, Oota fails to disclose the subject matter of the present application.

Furthermore, there is no motivation for one with ordinary skill in the art to place the rotating movement of the system disclosed in Nambu et al. with a linear movement. In particular, the main thrust of Nambu et al. is that by merely adjusting a rotation angle, the positioning of the bed can be made relatively easily. Thus, the present invention including the linear movement of the bed would appear to teach against the concept of Nambu et al. For these reasons, Applicants submit that independent claim 1 is allowable over both of these references and their combination.

Claims 9, 10, 18, 19 and 25 depend from claim 1 and as such are also considered to be allowable. In addition, each of these claims recite other features and make them additionally allowable. For example, claim 10 describes the x-ray simulator with the parallel disposition of the CT scanner, irradiation apparatus and x-ray simulator and the movement of the common bed between the three. Claim 19 describes the adjustment of the position of the patient on the common bed in the detectable region of the scanner. Accordingly, these claims are additionally allowable.

New claims 26 and 27 have also been presented which depend from claim 1. In addition to being allowable based on their dependency from claim 1, these claims further recite details of the linear moving mechanism for the bed including rails and a moving base with the bed being mounted on the moving base which is mounted on the rails. Claim 27 further describes the isocentric rotating mechanism being mounted on the moving base. Applicants submit that these claims are also additionally allowable.

CONCLUSION

In view of the above Remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert F. Gnuse Reg. No. 27,295

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at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

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